Subpart F—Cargo Handling System

AUTHORITY: 46 U.S.C. 3306, 3703; 49 U.S.C. App. 1804; 49 CFR 1.46.

SOURCE: CGD 73–172, 39 FR 22950, June 25, 1974, unless otherwise noted.

Subpart A—General

§64.1 Purpose.

This part contains the requirements for—

(a) Design, construction, repair, alteration, and marking of marine portable tanks (MPTs) authorized by this chapter to be carried on inspected vessels;

(b) Periodic inspections and tests of MPTs; and

(c) Design and construction of cargo-handling systems for MPTs and other portable tanks authorized under subparts 98.30 and 98.33 of this chapter.

[CGD 84–043, 55 FR 37409, Sept. 11, 1990; 55 FR 47477, Nov. 14, 1990]

§64.2 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, the Coast Guard must publish notice of the change in the FEDERAL REGISTER and make the material available to the public. All approved material is on file at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC; and at the U.S. Coast Guard, Marine Safety and Environmental Protection, 2100 Second Street SW., Washington, DC 20593—0001, and is available from the source indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this part, and the sections affected, are:

American Society of Mechanical Engineers (ASME) International

Three Park Avenue, New York, NY 10016—5990.

ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, Pressure Vessels, 1989, with Addenda issued December 31, 1989 (''ASME Code'').....64.5, 64.7, 64.11, 64.13, 64.21, 64.25, 64.31

[CGD 84–043, 55 FR 37409, Sept. 11, 1990; 55 FR 47477, Nov. 14, 1990, as amended by CGD 96–041, 61 FR 50728, Sept. 27, 1996; CGD 97–057, 62 FR 51044, Sept. 30, 1997; USCG–1999–6216, 64 FR 53225, Oct. 1, 1999]

§64.3 Applicability.

(a) This part applies to each MPT for which the Commanding Officer, U.S. Coast Guard Marine Safety Center, receives an application for approval on or before May 1, 1991.

(b) Subpart F of this part also applies to portable tanks and to cargo-handling systems for portable tanks authorized under subparts 98.30 and 98.33 of this chapter.

[CGD 84–043, 55 FR 37409, Sept. 11, 1990]

§64.5 Definitions.

As used in this part:

(a) *Marine portable tank* or *MPT* means a liquid-carrying tank that—

(1) Has a capacity of 110 gallons or more;

(2) Is designed to be carried on a vessel;

(3) Can be lifted full or empty onto and off a vessel, and can be filled and discharged while on a vessel;

(4) Is not permanently attached to the vessel; and

(5) Was inspected and stamped by the Coast Guard on or before September 30, 1992.

(b) *Tank* means the pressure vessel and the associated fittings of an MPT that come in contact with the product being carried.

(c) *Total containment pressure* means the minimum pressure for total product containment under normal operating conditions at a gauge pressure consisting of the absolute vapor pressure of the product at 122 °F added to the dynamic pressure, based on the

tank dimensions and the location of the relief devices, of not less than 5 pounds per square inch gauge (psig) at the top of the tank in the operating position.

(d) *Maximum allowable working pressure* means the maximum gauge pressure at the top of the tank in the operating position at 122 °F, equal to or greater than the total containment pressure as defined in paragraph (c) of this section. The maximum allowable working pressure is used in the calculation of the minimum thickness of each element of the tank, excluding the allowance for corrosion and the thickness for loadings other than pressure, as provided for in the ASME Code.

(e) *Test pressure* means a hydrostatic pressure of at least one and one-half times the maximum allowable working pressure.

(f) *Dynamic loading conditions* means the following:

(1) A loading in the vertical down direction equal to 2 times the weight of the tank and the heaviest product carried.

(2) A loading in the transverse direction equal to the weight of the tank and the heaviest product carried.

(3) A loading in the longitudinal direction equal to the weight of the tank and the heaviest product carried.

(g) *Owner* means the person, corporation, company, partnership, or organization in which is vested the ownership, dominion, or title of a portable tank.

[CGD 73–172, 39 FR 22950, June 25, 1974, as amended by CGD 84–043, 55 FR 37409, Sept. 11, 1990]

§ 64.9 Maintenance, repair, and alteration of MPTs.

(a) Each MPT must be maintained in accordance with the approved plans, this part, and subpart 98.30 of this chapter.

(b) Repair of an MPT is authorized, provided that each repair is in accordance with the approved plans.

(c) No MPT may be altered, except with the written approval of the Commanding Officer, U.S. Coast Guard Marine Safety Center.

(d) After each welded repair or alteration, an MPT must be hydrostatically pressure-tested in accordance with paragraph (a) of § 64.83 of this part.

[CGD 84–043, 55 FR 37409, Sept. 11, 1990]

Subpart B—Standards for an MPT

§ 64.11 Design of MPTs.

An MPT must be designed—

(a) In accordance with the ASME Code and this subpart;

(b) With a maximum gross weight of 55,000 pounds;

(c) To hold a liquid cargo that has a vapor pressure of 43 pounds per square inch absolute (psia) or less at a temperature of 122 °F;

(d) With a minimum service temperature of 0 °F or higher;

(e) With a maximum allowable working pressure of not less than 20 pounds per square inch gauge (psig) but not more than 48 psig; and

(f) To withstand dynamic loading conditions applied simultaneously.

[CGD 84–043, 55 FR 37410, Sept. 11, 1990; 55 FR 40755, Oct. 4, 1990]

§ 64.13 Allowable stress; tank.

(a) The calculated stress in the tank under design conditions, including dynamic loading conditions applied simultaneously, must not exceed the allowable stress listed in Division 1 of section VIII of the ASME Code, for a design temperature of 122 °F.

(b) The calculated stress in the tank at test pressure must not exceed 75 percent of the minimum yield stress,[1] or 37.5 percent of the minimum tensile stress[1] of the material, whichever is less.

[CGD 73–172, 39 FR 22950, June 25, 1974, as amended by CGD 84–043, 55 FR 37410, Sept. 11, 1990]

§ 64.15 Allowable stress; framework.

The calculated stress for the framework must be 80 percent or less of the minimum yield stress of the framework material under the dynamic loading conditions that are applied simultaneously.

[1] Listed in Division 1 of section VIII of the ASME Code.